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| APPLICATION NO.           | FILING DATE                        | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|------------------------------------|-----------------------|---------------------|------------------|
| 10/525,502                | 02/23/2005                         | Hiroshi Mimura        | 1009682-000144      | 7858             |
|                           | 7590 08/04/200<br>INGERSOLL & ROOI | EXAMINER              |                     |                  |
| POST OFFICE               | BOX 1404                           | REYNOLDS, STEVEN ALAN |                     |                  |
| ALEXANDRIA, VA 22313-1404 |                                    |                       | ART UNIT            | PAPER NUMBER     |
|                           |                                    | 3728                  |                     |                  |
|                           |                                    |                       |                     |                  |
|                           |                                    | NOTIFICATION DATE     | DELIVERY MODE       |                  |
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# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                   | Applica                   | tion No.            | Applicant(s)                  | Applicant(s) |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------|-------------------------------|--------------|--|--|--|--|
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                   |                           | 502                 | MIMURA ET AL.                 |              |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                   |                           | er                  | Art Unit                      |              |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                   | Steven I                  | Reynolds            | 3728                          |              |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply                                                                                             |                           |                     |                               |              |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |                                                                                                                                                                                                                   |                           |                     |                               |              |  |  |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                   |                           |                     |                               |              |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Responsive to communication(s) file                                                                                                                                                                               | ed on 23 February 2       | 005                 |                               |              |  |  |  |  |
| · · · · · · · · · · · · · · · · · · ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Responsive to communication(s) filed on <u>23 February 2005</u> .  This action is <b>FINAL</b> . 2b) This action is non-final.                                                                                    |                           |                     |                               |              |  |  |  |  |
| ′=                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                   | <i>'</i> —                |                     | tters prosecution as to the   | e merite is  |  |  |  |  |
| ا ا                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. |                           |                     |                               |              |  |  |  |  |
| Dispositi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | on of Claims                                                                                                                                                                                                      | ioo anaon Ex parto s      | (day)0, 1000 0.     | 5. 11, 100 0.0. 210.          |              |  |  |  |  |
| ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                   | P 0                       |                     |                               |              |  |  |  |  |
| -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Claim(s) <u>8-18</u> is/are pending in the a                                                                                                                                                                      |                           |                     |                               |              |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4a) Of the above claim(s) is/are withdrawn from consideration.                                                                                                                                                    |                           |                     |                               |              |  |  |  |  |
| ·                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5) Claim(s) is/are allowed.                                                                                                                                                                                       |                           |                     |                               |              |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Claim(s) <u>8-18</u> is/are rejected.                                                                                                                                                                             |                           |                     |                               |              |  |  |  |  |
| -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Claim(s) is/are objected to.                                                                                                                                                                                      | -ti                       |                     |                               |              |  |  |  |  |
| 8)[                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Claim(s) are subject to restrict                                                                                                                                                                                  | ction and/or election     | requirement.        |                               |              |  |  |  |  |
| Applicati                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | on Papers                                                                                                                                                                                                         |                           |                     |                               |              |  |  |  |  |
| 9) 🗌 .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | The specification is objected to by th                                                                                                                                                                            | ne Examiner.              |                     |                               |              |  |  |  |  |
| 10)🛛                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The drawing(s) filed on <u>23 <i>February</i></u>                                                                                                                                                                 | <u>2005</u> is/are: a)⊠ a | ccepted or b)□      | objected to by the Exami      | iner.        |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Applicant may not request that any obje                                                                                                                                                                           | ection to the drawing(s)  | ) be held in abeya  | ance. See 37 CFR 1.85(a).     |              |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Replacement drawing sheet(s) including                                                                                                                                                                            | g the correction is requ  | ired if the drawing | g(s) is objected to. See 37 C | FR 1.121(d). |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                   |                           |                     |                               |              |  |  |  |  |
| Priority u                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | nder 35 U.S.C. § 119                                                                                                                                                                                              |                           |                     |                               |              |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☑ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received.  2. ☐ Certified copies of the priority documents have been received in Application No  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                   |                           |                     |                               |              |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                   |                           |                     |                               |              |  |  |  |  |
| Attachment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | c(s)                                                                                                                                                                                                              |                           |                     |                               |              |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                   |                           |                     |                               |              |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date 2/23/05, 8/1/05, 7/31/07.  Paper No(s)/Mail Date  Other:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                   |                           |                     |                               |              |  |  |  |  |

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#### **DETAILED ACTION**

## Claim Objections

1. Claim 18 is objected to because of the following informalities: Claim 18 is the same as claim 17. For the purposes of examination the Examiner will assume for Claim 18 to depend from claim 14. Appropriate correction is required.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 8-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al. (US 6,732,877). Wu discloses a substrate storage container including: a container body (8) of a front-opening box for storing substrates therein; a door (82) for opening and closing the front of the container body; and an inner-pressure adjustment device (air vent plug arrangement See Fig. 2) attached to, at least, one of the container body and the door, capable of adjusting the pressure inside the container body closed with

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the door; the inner-pressure adjustment device is composed of an attachment cylinder (2), a hollowed filter support structure (1/4) fitted into the attachment cylinder and a filter (5) held inside the filter support structure; an attachment hole (80) for the attachment cylinder is formed in, at least, one of the container body and the door, and a guide rib (rib around hole 80 – See Fig. 2) for the inner-pressure adjustment device is formed near the attachment hole; the attachment cylinder has a flange (10) projected from the outer peripheral surface thereof for hooking the attachment hole, the filter support structure is formed of a pair of separate support pieces (1 and 4) opposing each other, each supporting piece having an approximately cylindrical form, and the opposing parts of the supporting pieces are extended outwards with respect to the width direction, forming filter holders.

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4. Claims 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ejima et al. (US 6,032,802). Ejima discloses a substrate storage container including: a container body (13) of a front-opening box for storing substrates therein; a door (14) for opening and closing the front of the container body; and an inner-pressure adjustment device (27) attached to, at least, one of the container body and the door, capable of adjusting the pressure inside the container body closed with the door; the inner-pressure adjustment device is composed of an attachment cylinder (33), a hollowed filter support structure (29) fitted into the attachment cylinder and a filter (31) held inside the filter support structure; an attachment hole (26) for the attachment cylinder is formed in, at least, one of the container body and the door, and a guide rib (ribs are created by

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cutouts 26A) for the inner-pressure adjustment device is formed near the attachment hole.

## Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  - 1. Determining the scope and contents of the prior art.
  - 2. Ascertaining the differences between the prior art and the claims at issue.
  - 3. Resolving the level of ordinary skill in the pertinent art.
  - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 7. Claims 13, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (US 6,732,877) in view of Yamamoto (US 5,960,960). As described above, Wu discloses the claimed invention except is silent about the specifics of the shelf elements on the interior sides of the container body. However, Yamamoto teaches a substrate storage container comprising shelf elements which include a part of the substrate contact area of each shelf element that is formed with a low-frictional resistance portion (203) for the purpose of allowing the substrate to be easily removed from the shelf elements. Therefore, it would have been obvious to one of ordinary skill in

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the art at the time the invention was made to have provided the shelf elements of Wu to include a low-frictional resistance portion as taught by Yamamoto in order to allow the substrates to slide into the shelf elements smoothly and to be removed more easily.

Wu-Yamamoto discloses the claimed invention except for the specifics of the low-frictional resistance portion of the shelf elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the low-frictional resistance portions from a material having any roughness in order to have the desired smoothness. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

8. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (US 6,732,877) in view of Nyseth (US 5,586,658). As described above, Wu discloses the claimed invention except is silent about the specifics of the interior backside of the container. However, Nyseth teaches a substrate container comprising a backside (interior surface of 18 - See Fig. 3 and Fig. 8) which includes grooves (115) with a sectional shape configured to be asymmetrical with respect to the substrate in order to hold the substrate in place in the container. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the interior backside of the container of Wu with grooves as taught by Nyseth in order to better hold the substrates in place within the container.

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9. Claims 13, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ejima et al. (US 6,032,802) in view of Yamamoto (US 5,960,960). As described above, Ejima discloses the claimed invention except is silent about the specifics of the shelf elements on the interior sides of the container body. However, Yamamoto teaches a substrate storage container comprising shelf elements which include a part of the substrate contact area of each shelf element that is formed with a low-frictional resistance portion (203) for the purpose of allowing the substrate to be easily removed from the shelf elements. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the shelf elements of Ejima to include a low-frictional resistance portion as taught by Yamamoto in order to allow the substrates to slide into the shelf elements smoothly and to be removed more easily.

Ejima Yamamoto discloses the claimed invention except for the specifics of the low-frictional resistance portion of the shelf elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the low-frictional resistance portions from a material having any roughness in order to have the desired smoothness. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

10. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ejima et al. (US 6,032,802) in view of Nyseth (US 5,586,658). As described above,

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Ejima discloses the claimed invention except is silent about the specifics of the interior backside of the container. However, Nyseth teaches a substrate container comprising a backside (interior surface of 18 - See Fig. 3 and Fig. 8) which includes grooves (115) with a sectional shape configured to be asymmetrical with respect to the substrate in order to hold the substrate in place in the container. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the interior backside of the container of Ejima with grooves as taught by Nyseth in order to better hold the substrates in place within the container.

#### Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Reynolds whose telephone number is (571)272-9959. The examiner can normally be reached on Monday-Friday 9:30am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on (571)272-4562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. R./ Examiner, Art Unit 3728 /J. M. M./ Primary Examiner, Art Unit 3728